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ABSTRACT

A total of 3,681 students in the second, fifth, and eighth grades at 24 integrated elementary schools completed a brief questionnaire listing the sex and race of their four best friends at school. Racial discrimination in friendship choices was related to the relative frequency of the student's racial group within a grade. Blacks, but not whites, discriminated most on the basis of race when they constituted from 20 to 80% of the relevant population. Possible reasons for this relationship between proportionality and discrimination are discussed. (Author)

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RACIAL COMPOSITION AND RACIAL DISCRIMINATION IN THE CLASSROOM

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Over fifty years ago the President of Harvard University, in justifying the use of quotas, wrote that "The anti-semetic feeling among the students is increasing, and it grows in proportion to the increase in the number of Jews. If their number should become 40 percent of the student body the race feeling would become intense. When, on the other hand, the number of Jews was small, the race antagonism was small also (Literary Digest, 1922)". Since then there has been much research on the relationship between intergroup contact and intergroup attitudes (Amir, 1969) but only a small portion of it has focused specifically on the relationship between the relative size of the groups involved and mutual acceptance.

Data bearing upon this question was first gathered by Criswell (1939) who studied the seat-mate preferences of 2,286 children in grades kindergarten to eight attending three schools that ranged from 25 to 75 percent black. Though her units of analysis, like-sexed groups within classrooms, varied from 5 to 95 percent black, she inexplicably chose to analyse the seatmate preferences of only those whose racial group made up more than half the class. She found that when black or white girls constituted 60 percent of all the girls in a classroom (a small majority) they discriminated more against those in the other racial group than when they constituted a larger majority of 80 or 90 percent. This finding, it should be noted, is consistent with the conjectures of Harvard's President Lowell. Intergroup discrimination increased as the size of the groups

approached equality. Criswell's findings for boys were just the opposite. When black or white boys comprised roughly 60 percent of all those in a classroom they discriminated significantly less against their counterparts of the other race than when they comprised a larger majority.

Those who appreciate consistency will be dismayed to learn of the findings of Gottlieb and Ten Houten (1965). They had students in two integrated high schools, 5 and 50 percent black respectively, choose their three closest friends at school. Both black and white boys discriminated more on race when their numbers were approximately equal than when whites were in the great majority. But black and white girls discriminated less on race when their own group made up half the school population than when more than nine out of ten girls in the school were white. Thus Criswell's findings cause us to conclude equal representation contributes to discrimination on the part of girls but not boys while those of Gottlieb and Ten Houten imply just the opposite.

Dentler and Elkins (1967) attempted to study the relationship between racial composition and racial attitudes under the handicap of being to racially identify their respondents beyond the fact that they attended schools that were 100 percent, 75 percent, or 35 percent white. If we make the reasonable assumption that blacks in these schools expressed more positive opinions about blacks than did whites we can infer from their data that as the percentage of whites

in a school declined from 100 to 35 percent whites' attitudes towards blacks became more negative. A similar pattern of results was discovered by Glock et.al. (1975) when they explored the relationship between Christians and Jews attending three high schools in which the proportion of Christian students varied from 99 to 57 percent. Both groups discriminated more on religion when selecting friends as the percentage of Christians declined, or in other words, as the percentage of Christians and Jews became approximately equal.

St. John and Lewis (1975) asked students in 36 sixth grade classes to indicate how much they liked each of their classmates on a five point rating scale. The degree to which whites liked whites and blacks liked blacks in majority white and majority black classrooms was calculated. Their findings show that there was a tendency for both blacks and whites to manifest greater preference for their own group as it came to comprise more than half the class. When in a minority themselves blacks and particularly whites were less discriminatory in their expressions of liking. Recalling the findings of Dentler and Elkins (1967) we would have expected exactly the opposite.

Clearly the relationship between racial composition and racial discrimination is unclear. Contributing to this confusion has been researchers' tendency to focus upon only two points along the racial composition dimension. This makes it impossible to detect anything other than a linear relationship. And as Figure 1 reveals, different researchers have measured racial composition at different points along

that dimension thus making comparisons across studies risky. Finally other variables such as blacks and whites similarity along dimensions like socioeconomic status and academic performance might conceivably covary with racial composition and confound relationships between that variable and mutual attraction. In the present study some of these difficulties were overcome.

Insert Figure 1 About Here

Along with studying the relationship between racial composition and racial discrimination that data gathered herein allowed us to explore the relationships between race, sex, grade and degree of discrimination. While some might suppose that externally enforced segregation lies behind blacks' tendencies to associate with other blacks the weight of the research suggests that when racial differences in discrimination are found, blacks count race more heavily when choosing friends than do whites (Lundberg and Dickson, 1952; St. John, 1964). Though some have speculated that black girls and white boys should discriminate more than their opposite-sex counterparts (Carithers, 1970; St. John, 1975) the evidence for this is not compelling. On the other hand the "common sense" belief that older children discriminate more on the basis of than younger children has received strong, if not frequent support (Criswell, 1939). These findings no doubt influenced our own expectations as we began to obtain measures of discrimination and proportional representation.

METHOD

Initially 15 public grammer schools in Chicago, whose enrollments varied from 10 to 90 percent black, were asked to participate in a study of cross-racial friendship choices. For various reasons six of the schools chose not to participate. To fill the resulting void three integrated suburban school systems (Evanston, Oak Park, and South Holland, Illinois) were asked to cooperate and all agreed.[1] As a result students in the second, fifth, and eighth grades at 24 integrated grammer schools completed a brief questionnaire in which they listed their four best friends at school. At most schools two classes, or about 50 students were sampled at each grade level. This resulted in a sample of 3681 children.

After choosing their four best friends at the school the students were asked to indicate their own and their friends' sex and race. Second graders who experienced difficulty with the task were asked by the teacher or one of the experimenters.

Inspection of the data revealed that students chose their friends almost exclusively from among their own sex and age group. Though students were theoretically choosing friends from a population that consisted of all students in up to eight grades, actual choices were restricted to a much narrower subset of the student body. Subsequent statistical analysis were conducted with this in mind.

Students were first grouped on the basis of race, sex, and grade (collapsing across classrooms) within each school (eg. white fifth

grade males). A total of 212 such groups were derived. The relative size of each of these groups was calculated by dividing the number of its members by the total number of students of the same sex and grade in the school. For example, if there were 15 white fifth grade males and 25 fifth grade males the relative size of the white fifth grade male group would be 60 percent.

The ratio formed by dividing the percentage of those in a group actually making cross-racial friendship choices by the percentage expected to do so by chance provided the index of racial discrimination. Thus if 5 out of 15 white fifth grade males chose non-white best friends the numerator of the discrimination ratio based on choices of best friends would be 33 percent. When choosing his best friend each white fifth grade male in our example was confronted with a population consisting of 14 white males and 10 black males. For choices of best friends the denominator of the discrimination ratio equaled the number of same grade like-sexed individuals in all racial groups other than that of the chooser (10) divided by the number of like-sexed individuals in the grade minus one (24) or 42 percent. Thus the ratio itself would be 33/42 or .79. This discrimination ratio can be interpreted to mean that this particular group of white fifth grade males chose in an integrated fashion about four-fifths as often as would be expected were race playing no role in their selections. Ratios of less than 1 indicate fewer cross-racial choices than would be expected by chance and suggest that the group in question was discriminating against the outgroup on the basis of race or race

correlated traits. Ratios greater than 1 indicate more cross-racial choices than would be expected by chance and suggest discrimination in favor of the outgroup.

Discrimination ratios were also calculated based on students' choices of their four best friends. In such cases the numerator consisted of the percentage of those in the unit of analysis who chose at least one outgroup individual among their four closest friends. The hypergeometric distribution was used to calculate the denominator which reflected the percentage of those in the unit of analysis that was expected to choose at least one member of the other race when selecting four friends (Hays, 1963).

RESULTS

Our first inclination was to relate proportional representation, subjects' race, sex and grade in school to the discrimination ratios by means of two four way analyses of variance. This proved impractical however because of unequal and insufficiently large cell sizes. Thus we opted for performing a series of one-way analyses of variance separately relating each main effect to the indices of racial discrimination. [2]

Insert Table 1 About Here

Table 1 shows that all the variables except subjects' sex were significantly, though weakly, related to their tendency to discriminate on race or race related traits when choosing best friends.

The top row of the table indicates that second graders on the average chose members of races other than their own 60 percent as often as would be expected by chance while fifth and eighth graders did so significantly less (about 45 percent as often as would be expected were race not being weighed). Apparently older children discriminate more than their younger counterparts. The second row of the table reveals that whites discriminated significantly less than blacks while the table's bottom row shows a significant relationship between discrimination and racial composition. Notice that the relationship is not linear. Instead individuals discriminate least when their own racial group constitutes either a small minority or a large majority of the like-sexed individuals in a grade. Table 2 depicts the results of identical analyses performed on discrimination ratios derived from subjects choices of their four best friends.

Insert Table 2 About Here

Figure 2 shows the relationship between the proportion of like-sexed individuals in a grade that were black and the extent to which black subjects took race into account when choosing best friends. The numerals in the body of the figure show the grade levels of the groups represented. Those in bold-face represent females. Clearly the relationship for blacks reflects and perhaps accentuates that obtained when the data based on all students were analysed. Blacks' mean discrimination ratios across the five categories of racial composition

Insert Figure 2 About Here

employed in Tables 1 and 2 were .57, .29, .42, .33, and .71 ($F = 3.51$, $df = 4,95$, $p < .01$). A trend analysis revealed a significant quadratic relationship thus confirming our conclusions concerning a curvilinear data pattern.

Insert Figure 3 About Here

Figure 3 shows the relationship between the proportion of like-sexed individuals in a grade that were white and the extent to which white subjects took race into account when choosing best friends. Whites' mean discrimination ratios across the five categories of proportional representation were .75, .58, .55, .44, and .63 ($F = 1.29$, $df = 4,107$, $p > .05$). Thus for white students there was no relationship between their proportional representation in a grade and the extent to which they engaged in discrimination.

Because the relationship between proportional representation and discrimination was not significant when discrimination was inferred from students' choices of four best friends, and because the discrimination ratio had some unforeseen limitations (to be discussed shortly) in these circumstances, this relationship was not examined further as a function of race.

DISCUSSION

One problem with the discrimination ratio is that with small minorities selecting four best friends its numerator, and thus the ratio itself, inevitably takes a value of 1.00. If black fifth grade

males, for example, constitute but ten percent of the 20 male fifth graders at a school, each of them must choose two white males among his four best friends unless he makes out of grade, out of sex, or out of school choices. The former were rare and the latter contrary to instructions. As they were statistically inevitable, the interpretation of large discrimination ratios based on the choice of four friends by small minorities is ambiguous.

A less severe problem with the discrimination ratio is that it can achieve values greater than 1.00 only as long as its denominator is less than 1.00. When choosing only best friends this occurs across the entire spectrum of proportional representation. But when the ratio is based on students choices of four best friends only groups in a large majority have expected percentages of interracial friendship choices of less than 1.00. Though theoretically all persons can practice reverse discrimination our index allows only those in a large majority to show it.

A second methodological problem that merits discussion is sampling. In most studies of this kind researchers, after experiencing numerous turndowns, are happy to gain access to any integrated school that will have them. Any pretense of random or even representative sampling must be abandoned. Several of the schools declining participation in the present study explained that racial tensions among their students rendered our innocuous questions potentially inflamatory. Thus there was probably greater racial cleavage in schools that refused to participate than those that did. As a result our overall estimates

of discrimination based on choices of best friends ($\bar{x}$ = .50) and four best friends ($\bar{x}$ = .66) may well be underestimates.

Ignoring methodological difficulties and taking the numbers at face value there is some evidence for concluding that there is a relationship between racial composition and racial discrimination. Several things about this relationship are noteworthy. Those few who have theorized about it (eg. Blalock, 1967) imagine that whites' tendency to discriminate against blacks, though not linear, is positively related to the percentage of blacks in the relevant population. Our data suggest little relationship, if any, between proportion black and whites' discriminatory tendencies. Regarding blacks' tendencies to affiliate on the basis of race Blalock writes that "the case of Negroes in the United States would suggest that minority mobilization may be highest when the minority percentage is intermediate in value ..." Though he was speaking of adults mobilizing to obtain political power his prediction fits our findings well. Black students do in fact seem to mobilize on the basis of race most when they constitute neither a small minority or a large majority.

Along with noting that our findings are consistent with one theoretician's expectations it should be pointed out that they are inconsistent with the apparent views of much of the judiciary. Since the late 1960's the courts have prescribed racial quotas that would tend to equalize the percentage of blacks and whites attending schools that previously were racially homogenous (Swann vs. Charlotte Mecklenberg Board of Ed. 1970, Keyes vs. School District 1, Denver 1974).

The ostensible rational for these rulings was that they followed from an earlier decision in which the Supreme Court ruled that assignment of students to schools on the basis of race violated the Fourteenth Amendment (Brown vs. Topeka Kansas Board of Education, 1954). The transparent inconsistency between present practice and the Brown decision suggests some motive other than legal precedent lies behind the more recent judicial decrees. One can speculate that the judiciary sees schools in which each racial group has substantial representation as a means of improving, among other things, race relations. Our data suggests they may be mistaken.

In concluding we are obligated to consider why any relationship at all was discovered between proportionality and discrimination. Perhaps individuals, finding themselves in a small minority, have to befriend those in the outgroup as there may be a shortage of ingroup members manifesting desired characteristics. Once a few cross-racial friendships have formed the salience of race, as an appropriate variable for determining social relations, may be lessened. Further group rivalry may be less likely to develop when one group is clearly dominant and the other numerically inferior. In such circumstances there is little chance of the minority, as a group, asserting itself and little need for the majority to do so. The question as to who rules the roost is settled before it is raised.

But when groups begin to approach equal numerosity it becomes as easy for individuals to find compatible companions within the ingroup as among the outgroup. Even moderate preference for ingroup

members may manifest itself as marked separation between the races. If this part of the explanation is accurate lower discrimination ratios generated by groups of moderate relative frequency cannot clearly be interpreted as indicating greater intergroup animosity but only as signifying situations that allow whatever racial preference that exists to show itself. On the other hand when groups approach equality the question of group pecking order remains to be resolved no doubt through competitions and eventually confrontations. To the extent that this aspect of the explanation for our findings is valid it is likely that the smaller discrimination ratios, associated with groups constituting from 20 to 80 percent of the relevant populations, reflect genuine acrimony between those of different races.

FOOTNOTES

1. Some of the Evanston schools and all the South Holland schools achieved integration by busing. No significant difference in racial discrimination was found between those attending naturally integrated schools and those attending schools integrated by busing.

2. A three-way analysis of variance relating race, sex and grade to racial discrimination was performed. None of the two-way or three-way interactions reached significance.

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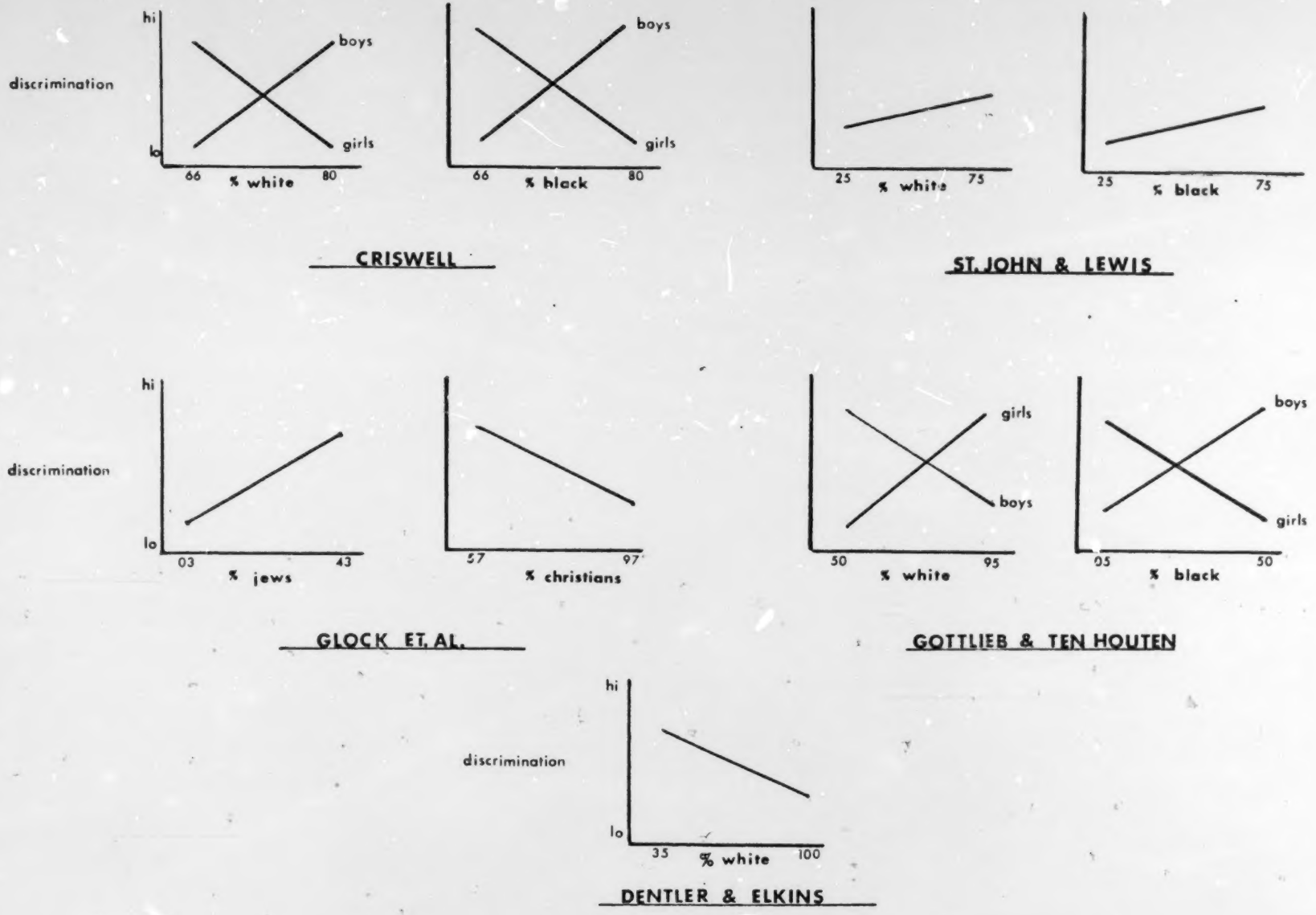

FIGURE 1. THE RELATIONSHIP BETWEEN RACIAL COMPOSITION AND RACIAL DISCRIMINATION

TABLE 1. The Relationship Between Grade, Race, Sex, Proportional Representation and Racial Discrimination when Choosing Best Friends

Variable	Levels and Means	$(SS_b / df_b) \div (SS_w / df_w)$	F-Ratio
Grade	2nd .60 · 5th .45 · 8th .43	(1.26 / 2) ÷ (38.27 / 209)	3.44 *
Race	Blacks .43 · Whites .57	(.97 / 1) ÷ (38.57 / 210)	5.27 *
Sex	Males .55 · Females .45	(.44 / 1) ÷ (39.02 / 210)	2.39
Proportional Representation	1-20% .62 · 21-40% .37 · 41-60% .51 · 61-80% .42 · 81-99% .64	(2.51 / 4) ÷ (37.01 / 207)	3.52 **

* $P < .05$
** $P < .01$

TABLE 2. The Relationship Between Grade, Race, Sex, Proportional Representation and Racial Discrimination when Choosing Four Friends

Variable	Levels and Means					$(SS_b/df_b) \div (SS_w/df_w)$	F-Ratio
Grade	2nd	5th	8th			(.71 / 2) ÷ (19.54 /209)	3.84 *
	.74	.63	.60				
Race	Blacks		Whites			(.30 / 1) ÷ (19.95 /210)	3.23
	.62		.70				
Sex	Males		Females			(.25 / 1) ÷ (20.09/210)	2.64
	69		63				
Proportional Representation	1-20%	21-40%	41-60%	61-80%	81-99%	(.88 /4) ÷ (19.38 /207)	2.34
	.74	.70	.64	.56	.65		

* $p<.05$

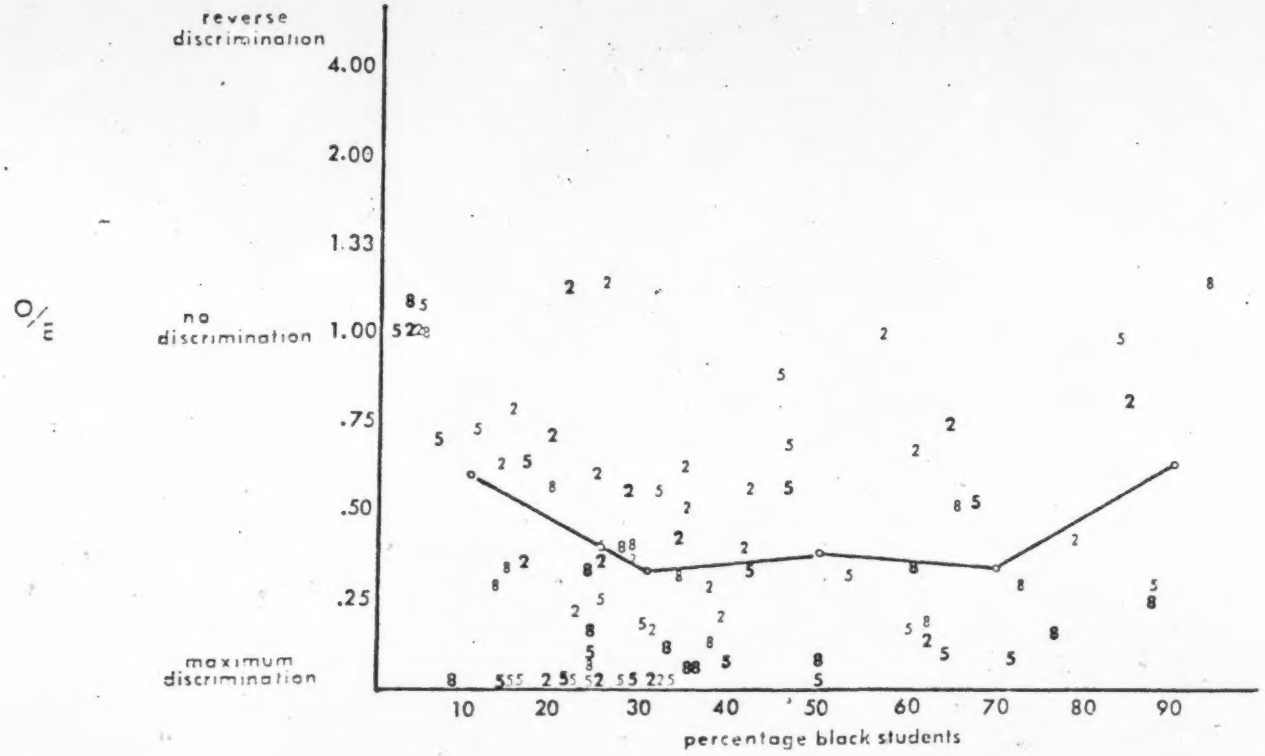

FIGURE 2. Proportional representation and racial discrimination by 2nd, 5th, and 8th grade male and female black students when choosing best friends

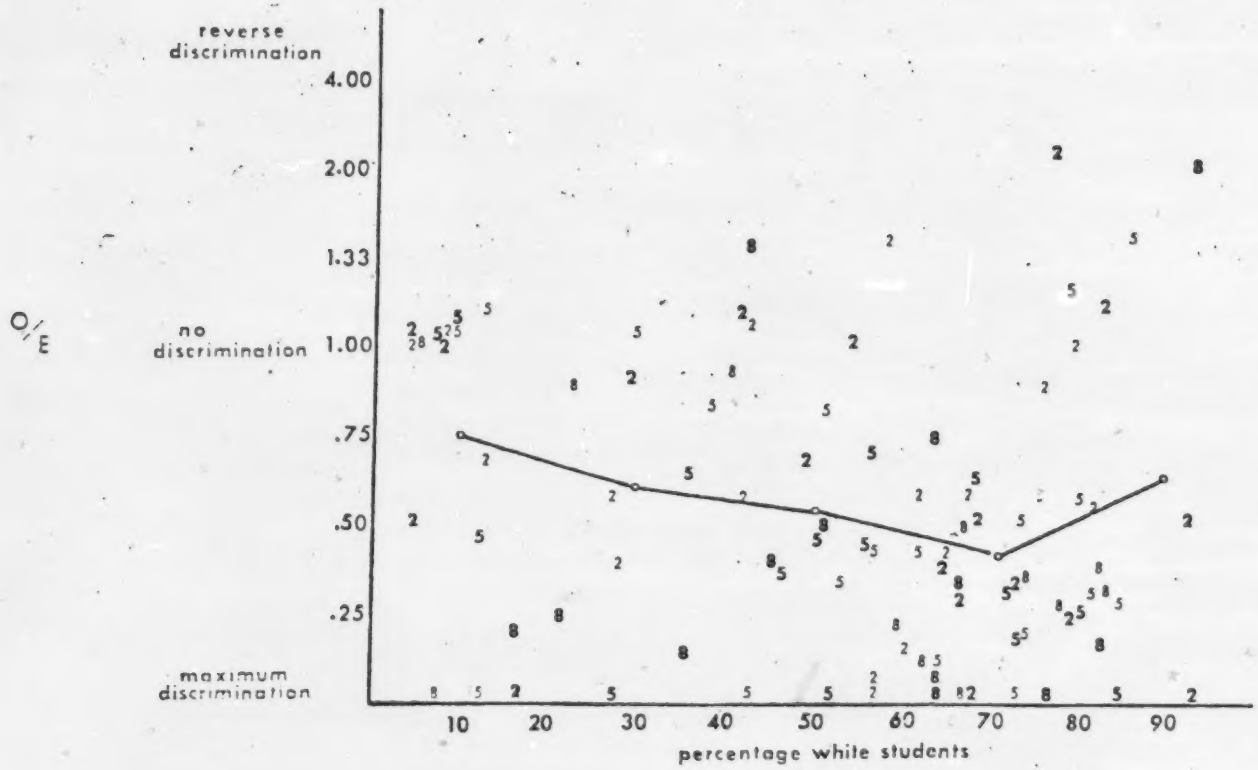

FIGURE 3. Proportional representation and racial discrimination by 2nd, 5th, and 8th grade male and female white students when choosing best friends